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ABSTRACT

This analysis discusses a proposed education tax credit that includes: a parental choice credit, where parents receive dollar-for-dollar reduction in income tax liability up to $500 per child for tuition costs, and a scholarship credit, which raises funds for low-income children by allowing dollar-for-dollar reduction in income taxes up to $500 for donations to a nonprofit scholarship. This analysis assumes that every dollar spent on the tax credit results in a revenue loss to the federal government totaling $9.2 billion. At the state level, the tax credit would create tremendous savings. By reducing private school costs, the credit would encourage parents to transfer their children into private schools, meaning that state governments would have fewer pupils to educate and could reduce expenditures. The parent choice component could help 330,000 new students attend private schools and make private schooling more affordable for millions of families already using private schools. The scholarship component could raise enough money to give 3 million students scholarships. If 2 million of those scholarships were used for moving into private schools, taxpayers would save $12 billion. The tax credit could enable 2.3 million new students to attend schools of their choice, saving $14 billion across the states. (SM)

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FISCAL ANALYSIS OF A $500 FEDERAL EDUCATION TAX CREDIT TO HELP MILLIONS, SAVE BILLIONS

by Darcy Ann Olsen, Carrie Lips, and Dan Lips

Policy Analysis No. 398
May 1, 2001

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Fiscal Analysis of a $500 Federal Education Tax Credit to Help Millions, Save Billions

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Executive Summary

On January 20, 2001, President George W. Bush entered office committed to two main goals: first, creating an education system that "leaves no child behind" and, second, providing tax relief. By adopting an education tax credit, the new president could take a significant step toward accomplishing both of those important goals.

The education tax credit under consideration here has two components. The first is a parental choice credit, under which any parent could receive a dollar-for-dollar reduction in income-tax liability of up to $500 per child for money spent on tuition. The second is a scholarship credit, which would raise funds for children in low-income families. Under the scholarship program, any individual could receive a dollar-for-dollar reduction in income-tax liability of up to $500 for donations to a nonprofit scholarship clearinghouse, which would pair the money with needy children, much as a highly successful program of this kind does in Arizona.

In this analysis, we assume that every dollar spent on the tax credit would result in a direct revenue loss to the federal government, for a total cost of $9.2 billion. At the state level, however, use of the tax credit results in tremendous savings. By reducing the cost of private schooling, the credit would encourage some parents to transfer their children from public to private schools. As students transfer, state governments have fewer pupils to educate and can reduce expenditures accordingly.

The parental choice component of the credit could help approximately 330,000 new students attend a school of their parents' choice, in addition to making private schooling more affordable for the millions of families with students currently enrolled in private schools. We project an estimated savings across the states of $2 billion, with significant variation by state. Savings to taxpayers in states such as California would be an estimated $250 million; in states like New Mexico, an estimated $8 million. We also find that the credit's scholarship component could raise enough money to give nearly 3 million students scholarships worth $2,000 apiece. If 2 million of those scholarships were used to move low income students from public to private schools, taxpayers would reap $12 billion in savings. Taking both components together, the parental choice and scholarship credits would enable roughly 2.3 million new students to attend a school of their parents' choice at a savings across the states of $14 billion.

Darcy Ann Olsen is director of education and child policy at the Cato Institute; Carrie Lips, a former policy analyst at the Cato Institute, is pursuing a master's degree in public policy at the John F. Kennedy School of Government at Harvard University; Dan Lips is education research assistant at the Cato Institute.

By effectively reducing the cost of private schooling, the credit would encourage some parents to transfer their children from public to private schools.

Introduction

Looked at from any number of perspectives, it is clear that America's system of K–12 schooling is leaving many children behind. Twenty-five percent of U.S. students haven't graduated from high school by age 18, and the nation's high-school seniors score below teenagers in almost every other developed country on mathematics and science tests.[1] Since the 1970s, per pupil expenditures have doubled, class sizes have shrunk, and teachers' salaries have grown. Despite those spending infusions and countless other reforms, student achievement has stagnated and even declined.[2]

Americans are increasingly dissatisfied with the quality of public schools, and most think private schools offer a better education than do public schools.[3] Concomitant with those sentiments is a growing belief that parents should have more control over the selection of their children's schools. A recent CNN/USA Today/Gallup poll found that 54 percent of Americans support policies that provide parents with a greater choice of schools.[4]

There is good reason to believe parents should have more control over their children's education: more than a dozen studies have found that school choice programs increase parental involvement and have a positive impact on student achievement.[5] And more than half of parents say that, if cost were not an issue, they would prefer to send their children to a private or parochial school.[6]

Policymakers attempting to satisfy parental demand for choice are increasingly considering using education tax credits. Among other benefits, education tax credits reduce the cost associated with choosing independent and parochial schools and thereby enlarge the pool of schools available to parents.[7] Education tax credits or deductions exist in 4 states, and at least 7 state legislatures considered adopting education tax credits in 2001.[8]

For the purpose of this analysis, we assume that every dollar spent on the tax credit results in a direct revenue loss to the federal government, for a total cost of $9.2 billion.[9] At the state level, however, use of the tax credit results in revenue savings.[10] By reducing the cost of private schooling, the education tax credit would encourage some parents to transfer their children from public to private schools. As students transfer to private schools, the government has fewer pupils to educate and can reduce education expenditures accordingly.

The parental choice component of the credit could help approximately 330,000 new students attend a school of their parents' choice, in addition to making private schooling more affordable for the families of the more than 5 million students currently enrolled in private schools.[11] We project an estimated savings across the states of $2 billion, with significant variation by state. Savings to taxpayers in states such as California would be an estimated $250 million; in states like New Mexico, an estimated $8 million. We also find that the credit's scholarship component could raise enough money to give nearly 3 million students scholarships worth $2,000 apiece. If 1 million of those scholarships assisted low-income children who are currently enrolled in private schools, there would still be enough revenue to help nearly 2 million additional children. Under this scenario, as nearly 2 million new students moved from public schools to private schools, taxpayers would reap $12 billion in savings. All together, the parental choice and scholarship credits would enable roughly 2.3 million new students to attend a school of their parents' choice at a savings to taxpayers of $14 billion.

The Proposal

The proposal under consideration is a $500, nonrefundable education credit against the federal income tax. This credit has two components. The first piece is a parental choice credit, under which any parent could receive a dollar-for-dollar reduction in income-tax liability of up to $500 per child

for money spent on tuition at a nonpublic school. The tax credit would provide a direct reduction of an individual's tax liability. For example, let's say that Chris owes $1,000 in federal income tax. Because he sends one of his children to a private school, Chris is eligible for the $500 parental choice credit. He subtracts the $500 tax credit from the $1,000 tax liability and now owes $500 in federal income tax.

The second component is a scholarship credit, which would raise scholarship funds for children in families with little or no income-tax liability. Under the scholarship program, any individual taxpayer[12] could receive a dollar-for-dollar reduction in income-tax liability of up to $500 per taxpayer for donations to a scholarship clearinghouse.[13] The scholarship organizations would then pair scholarships with needy children, thereby enabling families with no income-tax liability to choose alternative schools for their children. A similar scholarship tax credit in Arizona led to the creation of an estimated 35 scholarship clearinghouses and raised almost $14 million for scholarships in just one year.[14] Our analysis assumes that, like the Arizona model, the scholarship organizations are nonprofit, under sec. 501(c)3 of the Internal Revenue Service Code, and distribute 90 percent of their revenue as scholarships.[15]

If taxpayers spent money on tuition for their own children and also donated money to an education scholarship fund, they could claim both components of the tax credit as long as the combined amount did not exceed their tax liability. Likewise, a parent might be able to use the parental choice credit and still be a scholarship recipient, depending on scholarship eligibility requirements.[16]

As a practical matter, implementing the tax credit would require the establishment of various administrative procedures. Such procedures could include the following: (1) modify individual tax forms to provide a convenient way for taxpayers to claim the credit, (2) provide for a standard receipt, showing tuition payments, to be issued to parents by schools, thereby allowing parents to claim the proper credit, (3) provide for a standard receipt to be issued by scholarship organizations to donors, thereby allowing donors to claim the proper credit.

Judging by Arizona's experience with its tax credit, administering the credit should be fairly simple. Arizona law is silent on most administrative issues beyond the requirement that 90 percent of donations be distributed as scholarships. However, since the scholarship organizations are nonprofit, 501(c)3 organizations, they follow some standard procedures. According to Arizona's oldest scholarship organization, the Arizona School Choice Trust, once ASCT receives a contribution, the trust issues a receipt to the donor and informs him of the availability of the tax credit. To make sure the money is used to fund scholarships and that the trust can prove that to potential auditors, ASCT asks schools to certify attendance and tuition payments. ASCT also requires parents to sign a document stating that the scholarship will be used for a private K-12 school.[17]

Projecting the Impact of the Tax Credit

Variables

The projected impact of the universal education tax credit on federal and state budgets hinges on several important variables. The two most important are the rate at which taxpayers will use the credit and the attendant increase in demand for private schooling as the costs associated with choosing alternative schools decline.

For the purpose of this analysis, we assume that every dollar spent on the tax credit results in a direct revenue loss to the federal government. At the state level, however, use of the tax credit results in revenue savings. By reducing the cost of private schooling, the education tax credit would encourage some parents to transfer their children from public to private schools. As students transfer to private schools, the government has fewer

A similar scholarship tax credit in Arizona led to the creation of an estimated 35 scholarship clearinghouses and raised almost $14 million for scholarships in just one year.

pupils to educate and can reduce education expenditures accordingly, saving taxpayers money. For instance, if a dozen students transfer to a private school, that's 12 students for whom the state no longer has to pay education costs. We assume accordingly that every student who transfers from a public to a private school saves the state the money that would otherwise have been spent on that child.[18] That money can be reinvested in education services or returned directly to taxpayers.

To calculate the extent of those savings, it is necessary to estimate the change in demand for private school that would result from the decrease in the cost of private education. Economists define this relationship as the price elasticity of demand. A careful review of economic literature suggests the best estimate of the price elasticity of demand for private schools is -.48.[19] This means that if the price of private school were reduced by 10 percent, the demand for private school would increase by 4.8 percent.

The impact of the education tax credit also depends on tuition costs. Unfortunately the most recent data available on tuition costs at private schools nationwide is for the 1993-94 school year. At that time, average per pupil state expenditure was $5,327 and the average tuition for private schools was $3,116.[20] To estimate current tuition costs, we use the relationship between the average per pupil state expenditure in public schools and the average tuition for private schools and assume costs have increased at the same rate. Therefore, we estimate that the average cost of tuition in each state is 58.5 percent of that state's per pupil spending.

Along with estimating the likely increase in demand for private schooling, it is necessary to consider the availability of spaces in private school classrooms. In the first few years of the program, there could be a shortage of space in private schools, as it takes time for education providers to increase space, hire more teachers, and acquire the supplies needed to meet a significant increase in demand. However, private school capacity would expand to meet increased demand over time.[21] Given the potential lag in supply, estimates about the number of students switching from public to private school in the first years of the program may be high.

Depending on the price elasticity assumption, the number of new students seeking private education as a result of the parental choice credit would be between 263,767 and 409,534, or an increase in total demand for private schooling of between 5.2 and 8.1 percent.

Impact of the Parental Choice Credit

To conservatively estimate the fiscal impact of the parental choice credit on federal and state budgets, we assume that any taxpayer who currently has a child enrolled in a private school will use the $500 parental choice credit.[22] We then use the price elasticity of demand of -.48 to estimate the number of new families likely to use the credit. The total number of families using the credit determines the fiscal impact on the federal and state governments.

Table 1 shows the projected fiscal impact of the parental choice credit by state. Estimated savings to taxpayers vary significantly, depending on a range of factors including current demand for private schooling, the amount by which the credit reduces the cost of private schooling, and the state's per pupil expenditures.

We find that savings are greatest in states with large urban areas where demand for private schooling tends to be greater than the national average and in states where the government's per pupil expenditures are greater than the national average. Consider New York, for instance, where 14 percent of students are in private schools compared to the national average of 9.9 percent and per pupil spending is $8,852 compared to the national average of $6,189.[23] We estimate that the $500 parental choice credit would increase demand for private schooling by 4.6 percent, which means an estimated 21,668 students would transfer to private schools at a savings to New York taxpayers of $192 million.

Savings are less, though still significant, in states where demand for private schooling is lower than the national average and in states where the government's per pupil expenditures are less than the national average. Take Utah, which has the lowest percentage of students (2.6 percent) enrolled in private schools

Table 1
Projected Impact of the Parental Choice Tax Credit by State

State	Per Pupil Expenditure[a]	Public School Enrollment[b]	Private School Enrollment[c]	Private School Tuition[d]	Projected New Private School Students	Projected Federal Revenue Loss ($)	Projected State Revenue Savings ($)
Alabama	4,849	749,207	72,486	2,837	6,132	39,309,175	29,737,846
Alaska	8,271	132,123	6,253	4,838	310	3,281,586	2,565,333
Arizona	4,595	814,113	44,991	2,688	4,017	24,504,084	18,457,846
Arkansas	4,708	456,497	26,645	2,754	2,322	14,483,400	10,931,282
California	5,644	5,803,887	609,506	3,302	44,301	326,903,583	250,053,744
Colorado	5,656	687,167	52,563	3,309	3,812	28,187,696	21,564,308
Connecticut	8,904	535,164	69,293	5,209	3,193	36,242,863	28,427,897
Delaware	7,420	111,960	24,193	4,341	1,338	12,765,333	9,925,333
D.C.	8,393	77,111	16,671	4,910	815	8,742,940	6,839,385
Florida	5,552	2,294,077	273,628	3,248	20,218	146,923,174	112,257,641
Georgia	5,647	1,375,980	107,065	3,304	7,778	57,421,613	43,924,103
Hawaii	5,858	189,887	33,300	3,427	2,332	17,816,066	13,661,538
Idaho	4,721	244,403	9,635	2,762	837	5,236,160	3,952,821
Illinois	6,242	1,998,289	298,620	3,651	19,627	159,123,624	122,510,769
Indiana	6,318	986,836	105,358	3,696	6,842	56,099,833	43,223,795
Iowa	5,998	501,054	50,138	3,509	3,429	26,783,635	20,569,436
Kansas	5,727	468,687	40,573	3,350	2,906	21,739,693	16,645,333
Kentucky	5,213	669,322	70,731	3,050	5,566	38,148,696	29,017,846
Louisiana	5,188	776,813	141,633	3,035	11,199	76,416,144	58,105,846
Maine	6,742	2'2,579	17,187	3,944	1,046	9,116,434	7,051,077
Maryland	7,034	830,744	129,898	4,115	7,576	68,736,985	53,291,487
Massachusetts	7,778	949,006	127,165	4,550	6,707	66,936,018	52,170,256
Michigan	7,050	1,702,717	187,740	4,124	10,925	99,332,674	77,021,538
Minnesota	6,388	853,621	90,400	3,737	5,806	48,103,070	37,087,179
Mississippi	4,288	504,792	54,529	2,509	5,217	29,872,991	22,370,872
Missouri	5,565	910,613	119,534	3,256	8,812	64,172,935	49,039,590
Montana	5,724	162,335	8,341	3,349	598	4,469,415	3,421,949
Nebraska	5,958	292,681	40,943	3,485	2,819	21,881,143	16,797,128
Nevada	5,295	296,621	12,847	3,098	995	6,921,203	5,270,564
New Hampshire	6,156	201,629	21,143	3,601	1,409	11,276,005	8,674,051
New Jersey	9,643	1,250,276	205,126	5,641	8,727	106,926,436	84,154,256
New Mexico	5,005	331,673	19,251	2,928	1,578	10,414,558	7,897,846
New York	8,852	2,861,823	467,520	5,178	21,668	244,593,936	191,803,077
North Carolina	5,257	1,236,083	88,127	3,075	6,878	47,502,450	36,154,667
North Dakota	5,056	118,572	7,332	2,957	595	3,963,497	3,008,000
Ohio	6,198	1,847,114	251,543	3,626	16,650	134,096,310	103,197,128
Oklahoma	5,033	623,681	27,675	2,944	2,256	14,965,547	11,353,846
Oregon	6,419	541,346	44,290	3,755	2,831	23,560,425	18,170,256
Pennsylvania	7,209	1,815,151	343,191	4,217	19,531	181,361,236	140,796,308
Rhode Island	7,928	153,321	25,597	4,638	1,325	13,460,758	10,501,333
South Carolina	5,320	659,273	56,169	3,112	4,332	30,250,455	23,043,692
South Dakota	4,669	142,443	9,794	2,731	861	5,327,280	4,018,051

Continued

Table 1—Continued

State	Per Pupil Expenditure[a]	Public School Enrollment[b]	Private School Enrollment[c]	Private School Tuition[d]	Projected New Private School Students	Projected Federal Revenue Loss ($)	Projected State Revenue Savings ($)
Tennessee	4,937	893,044	84,651	2,888	7,034	45,842,375	34,728,615
Texas	5,444	3,891,877	223,294	3,185	16,826	120,060,132	91,607,795
Utah	3,969	482,957	12,653	2,322	1,308	6,980,497	5,190,974
Vermont	7,075	105,984	10,823	4,139	628	5,725,317	4,440,205
Virginia	6,067	1,110,815	98,307	3,549	6,648	52,477,461	40,331,077
Washington	6,040	991,235	76,956	3,533	5,227	41,091,730	31,571,692
West Virginia	6,323	301,419	14,640	3,699	950	7,794,928	6,006,154
Wisconsin	7,123	881,780	143,577	4,167	8,270	75,923,378	58,903,385
Wyoming	6,218	97,115	2,593	3,638	171	1,382,036	1,063,795
Total					333,180	2,704,648,910	2,082,509,949

[a]Current expenditure per pupil in fall enrollment in public elementary and secondary schools by state for the 1997–98 school year. National Center for Education Statistics, *Digest of Education Statistics 2000* (Washington: Government Printing Office, January 2001), NCES-2001-034, Table 169, <http://www.nces.ed.gov/pubs2001/ digest/>.

[b]Enrollment in public elementary and secondary schools, fall 1997. NCES, Table 39.

[c]Private elementary and secondary schools enrollment by state, fall 1997. NCES, Table 64.

[d]The most recent nationwide data available on tuition costs at private schools are for the 1993–94 school year when the average private school tuition was $3,116 and the average per pupil expenditure in fall enrollment at public elementary and secondary schools was $5,327. That year private school tuition was 58.5 percent of the per pupil expenditure in public schools. In this analysis, we estimate private school tuition by assuming that relationship held during the 1997–98 school year.

and the nation's lowest per pupil expenditure of $3,969. Table 2 shows that demand for private schooling in Utah would increase by 10.3 percent, sending 1,308 new students to schools of their parents' choice, at a savings to Utah taxpayers of $5.2 million.

Table 3 shows the net fiscal impact of the parental choice credit, according to three different estimates of the price elasticity of demand. Using the moderate assumption about elasticity of -.48, we find the credit would enable 333,180 new students to attend private schools and make schooling more affordable for the more than 5 million families with children currently enrolled in private schools, at a cost to the federal government of $2.7 billion and a savings to state governments of $2 billion. The table also shows the likely impact of the credit using -.38 and -.59 as the lower- and upper-bound estimates. Depending on the price elasticity assumption, the number of new students seeking private education as a result of the parental choice credit would be between 263,767 and 409,534, or an increase in total demand for private schooling of between 5.2 and 8.1 percent.

Impact of the Scholarship Credit

To determine the impact of the scholarship credit, we must estimate the percentage of taxpayers who would likely donate $500 to a scholarship organization. In order to estimate this kind of charitable giving, we look to a near approximation—taxpayer donations to education-related charities, for which tax-

Table 2
Projected Impact of the Parental Choice Tax Credit by State, All Variables

States	Per Pupil Expenditure[a] ($)	Public School Enrollment[b]	Private School Enrollment[c]	Private School Enrollment as Percent of Total Enrollment	Estimated Private School Tuition[d] ($)	Percent Decrease in Tuition	Expected Increase in Demand	Expected Increase in Enrollment	Projected Number of New Private School Students	Projected Federal Revenue Loss ($)	Projected State Revenue Savings ($)
Alabama	4,849	749,207	72,486	8.82%	2,837	17.6%	8.46%	0.75%	6,132	39,309,175	29,737,846
Alaska	8,271	132,123	6,253	4.52%	4,838	10.3%	4.96%	0.22%	310	3,281,586	2,565,333
Arizona	4,595	814,113	44,991	5.24%	2,688	18.6%	8.93%	0.47%	4,017	24,504,084	18,457,846
Arkansas	4,708	456,497	26,645	5.51%	2,754	18.2%	8.71%	0.48%	2,322	14,483,400	10,931,282
California	5,644	5,803,887	609,506	9.50%	3,302	15.1%	7.27%	0.69%	44,301	326,903,583	250,053,744
Colorado	5,656	687,167	52,563	7.11%	3,309	15.1%	7.25%	0.52%	3,812	28,187,696	21,564,308
Connecticut	8,904	535,164	69,293	11.46%	5,209	9.6%	4.61%	0.53%	3,193	36,242,863	28,427,897
Delaware	7,420	111,960	24,193	17.77%	4,341	11.5%	5.53%	0.98%	1,338	12,765,333	9,925,333
D.C.	8,393	77,111	16,671	17.78%	4,910	10.2%	4.89%	0.87%	815	8,742,940	6,839,385
Florida	5,552	2,294,077	273,628	10.66%	3,248	15.4%	7.39%	0.79%	20,218	146,923,174	112,257,641
Georgia	5,647	1,375,980	107,065	7.22%	3,304	15.1%	7.26%	0.52%	7,778	57,421,613	43,924,103
Hawaii	5,858	189,887	33,300	14.92%	3,427	14.6%	7.00%	1.04%	2,332	17,816,066	13,661,538
Idaho	4,721	244,403	9,635	3.79%	2,762	18.1%	8.69%	0.33%	837	5,236,160	3,952,821
Illinois	6,242	1,998,289	298,620	13.00%	3,651	13.7%	6.57%	0.85%	19,627	159,123,624	122,510,769
Indiana	6,318	986,836	105,358	9.65%	3,696	13.5%	6.49%	0.63%	6,842	56,099,833	43,223,795
Iowa	5,998	501,054	50,138	9.10%	3,509	14.2%	6.84%	0.62%	3,429	26,783,635	20,569,436
Kansas	5,727	468,687	40,573	7.97%	3,350	14.9%	7.16%	0.57%	2,906	21,739,693	16,645,333
Kentucky	5,213	669,322	70,731	9.56%	3,050	16.4%	7.87%	0.75%	5,566	38,148,696	29,017,846
Louisiana	5,188	776,813	141,633	15.42%	3,035	16.5%	7.91%	1.22%	11,199	76,416,144	58,105,846
Maine	6,742	212,579	17,187	7.48%	3,944	12.7%	6.09%	0.46%	1,046	9,116,434	7,051,077
Maryland	7,034	830,744	129,898	13.52%	4,115	12.2%	5.83%	0.79%	7,576	68,736,985	53,291,487
Massachusetts	7,778	949,006	127,165	11.82%	4,550	11.0%	5.27%	0.62%	6,707	66,936,018	52,170,256
Michigan	7,050	1,702,717	187,740	9.93%	4,124	12.1%	5.82%	0.58%	10,925	99,332,674	77,021,538
Minnesota	6,388	853,621	90,400	9.58%	3,737	13.4%	6.42%	0.62%	5,806	48,103,070	37,087,179
Mississippi	4,288	504,792	54,529	9.75%	2,509	19.9%	9.57%	0.93%	5,217	29,872,991	22,370,872
Missouri	5,565	910,613	119,534	11.60%	3,256	15.4%	7.37%	0.86%	8,812	64,172,935	49,039,590
Montana	5,724	162,335	8,341	4.89%	3,349	14.9%	7.17%	0.35%	598	4,469,415	3,421,949
Nebraska	5,958	292,681	40,943	12.27%	3,485	14.3%	6.89%	0.85%	2,819	21,881,143	16,797,128
Nevada	5,295	296,621	12,847	4.15%	3,098	16.1%	7.75%	0.32%	995	6,921,203	5,270,564
New Hampshire	6,156	201,629	21,143	9.49%	3,601	13.9%	6.66%	0.63%	1,409	11,276,005	8,674,051
New Jersey	9,643	1,250,276	205,126	14.09%	5,641	8.9%	4.25%	0.60%	8,727	106,926,436	84,154,256
New Mexico	5,005	331,673	19,251	5.49%	2,928	17.1%	8.20%	0.45%	1,578	10,414,558	7,897,846
New York	8,852	2,861,823	467,520	14.04%	5,178	9.7%	4.63%	0.65%	21,668	244,593,936	191,803,077
North Carolina	5,257	1,236,083	88,127	6.66%	3,075	16.3%	7.80%	0.52%	6,878	47,502,450	36,154,667
North Dakota	5,056	118,572	7,332	5.82%	2,957	16.9%	8.12%	0.47%	595	3,963,497	3,008,000
Ohio	6,198	1,847,114	251,543	11.99%	3,626	13.8%	6.62%	0.79%	16,650	134,096,310	103,197,128
Oklahoma	5,033	623,681	27,675	4.25%	2,944	17.0%	8.15%	0.35%	2,256	14,965,547	11,353,846
Oregon	6,419	541,736	44,290	7.56%	3,755	13.3%	6.39%	0.48%	2,831	23,560,425	18,170,256
Pennsylvania	7,209	1,815,151	343,191	15.90%	4,217	11.9%	5.69%	0.90%	19,531	181,361,236	140,796,308
Rhode Island	7,928	153,321	25,597	14.31%	4,638	10.8%	5.17%	0.74%	1,325	13,460,758	10,501,333
South Carolina	5,320	659,273	56,169	7.85%	3,112	16.1%	7.71%	0.61%	4,332	30,250,455	23,043,692
South Dakota	4,669	142,443	9,794	6.43%	2,731	18.3%	8.79%	0.57%	861	5,327,280	4,018,051
Tennessee	4,937	893,044	84,651	8.66%	2,888	17.3%	8.31%	0.72%	7,034	45,842,375	34,728,615
Texas	5,444	3,891,877	223,294	5.43%	3,185	15.7%	7.54%	0.41%	16,826	120,060,132	91,607,795

Continued

Table 2—Continued

States	Per Pupil Expenditure[a] ($)	Public School Enrollment[b]	Private School Enrollment[c]	Private School Enrollment as Percent of Total Enrollment	Estimated Private School Tuition[d] ($)	Percent Decrease in Tuition	Expected Increase in Demand	Expected Increase in Enrollment	Projected Number of New Private School Students	Projected Federal Revenue Loss ($)	Projected State Revenue Savings ($)
Utah	3,969	482,957	12,653	2.55%	2,322	21.5%	10.34%	0.26%	1,308	6,980,497	5,190,974
Vermont	7,075	105,984	10,823	9.27%	4,139	12.1%	5.80%	0.54%	628	5,725,317	4,440,205
Virginia	6,067	1,110,815	98,307	8.13%	3,549	14.1%	6.76%	0.55%	6,648	52,477,461	40,331,077
Washington	6,040	991,235	76,956	7.20%	3,533	14.2%	6.79%	0.49%	5,227	41,091,730	31,571,692
West Virginia	6,323	301,419	14,640	4.63%	3,699	13.5%	6.49%	0.30%	950	7,794,928	6,006,154
Wisconsin	7,123	881,780	143,577	14.00%	4,167	12.0%	5.76%	0.81%	8,270	75,923,378	58,903,385
Wyoming	6,218	97,115	2,593	2.60%	3,638	13.7%	6.60%	0.17%	171	1,382,036	1,063,795
Total									333,180	2,704,648,910	2,082,509,949

[a]Current expenditure per pupil in fall enrollment in public elementary and secondary schools by state for the 1997–98 school year. National Center for Education Statistics, *Digest of Education Statistics 2000* (Washington: Government Printing Office, January 2001), NCES-2001-034, Table 169, <http://www.nces.ed.gov/pubs2001/digest/>.

[b]Enrollment in public elementary and secondary schools, fall 1997. *Digest of Education Statistics 2000*, Table 39.

[c]Private elementary and secondary schools enrollment by state, fall 1997. *Digest of Education Statistics 2000*, Table 64.

[d]The most recent nationwide data available on tuition costs at private schools is for the 1993–94 school year when the average private school tuition was $3,116 and the average per pupil expenditure in fall enrollment at public elementary and secondary schools was $5,327. That year private school tuition was 58.5 percent of the per pupil public expenditure in public schools. In this analysis, we estimate private school tuition by assuming that relationship held during the 1997–98 school year.

Table 3
Net Fiscal Impact of the Parental Choice Credit

Variable	Price Elasticity of Demand		
	-.38	-.48	-.59
Number of new students	263,767	333,180	409,534
Cost to federal government	$2,669,942,679	$2,704,684,910	$2,742,825,765
Savings to state governments	$1,648,653,709	$2,082,509,949	$2,559,751,812
Net fiscal impact on federal and state governments (cost)	$ 1,021,288,970	$622,138,962	$183,073,953

payers may take a charitable deduction. For instance, 20 million households contributed to education-related charities in 1995.[24] If the same taxpayers contributed to student scholarship organizations, we would expect a participation rate of roughly 17 percent of taxpayers.[25]

However, participation rates could be higher or lower. Because taxpayers have no choice but to pay income taxes, the act of redirecting a portion of those taxes to scholarships puts no additional cost on the taxpayer. In that sense, donations are "costless," so we might expect participation rates greater than 17 percent. For instance, if a majority of individuals with an income tax liability exercised the credit, the participation rate could be 50 percent.[26]

To exercise the credit, however, taxpayers would have to be willing and able to make a donation by the end of the calendar year and wait to be reimbursed until tax returns were processed. That reduces the likelihood of participation. Credit use will also depend on program awareness, which may not be widespread. For example, just 2 percent of taxpayers in Arizona made scholarship donations and used the state's scholarship credit in 1999, the second year of operation.[27] Without much publicity, it is likely that participation rates at the national level would be similarly low, increasing gradually over time as the program

Table 4
Amount of Revenue the Scholarship Tax Credit Could Raise

Taxpayer Participation Rate (%)	Number of Taxpayers (millions)	Amount Donated ($)	Total Revenue Generated ($ billions)
2	2.6	$500	1.3
5	6.5	$500	3.25
10	13	$500	6.5
17	22.1	$500	11.1
20	26	$500	13
50	65	$500	32.5

Note: The Tax Foundation estimates that there were 123.8 million taxpayers in 1998. Tax Foundation, "Summary of Federal Income Tax Data, 1998 & 1999," *Tax Bites*, <http://www.taxfoundation.org/prtopincometable.html>. This table assumes that number has grown to 130 million this year, roughly the same growth rate as from 1995 to 1998.

Because taxpayers have no choice but to pay income taxes, the act of redirecting a portion of those taxes to scholarships puts no additional cost on the taxpayer.

Table 5
Fiscal Impact of the Scholarship Credit

Impact	Amount
Total amount donated to scholarship organizations (revenue loss to the federal government)	$6,500,000,000
Amount distributed in scholarships	$5,850,000,000
Individual scholarship amount	$2,000
Number of scholarships distributed	2,925,000
Qualifying private school students	1,000,000
Scholarships remaining for new students	1,925,000
Average state per pupil cost	$6,189
State savings	$11,913,825,000
Net fiscal impact on federal and state governments (savings)	$5,413,825,000

Under this scenario, 2.9 million scholarships in the amount of $2,000 apiece would be available for students.

gained attention. Table 4 shows how much revenue could be raised for scholarships given a wide range of participation rates.

The following calculations are based on the assumption that, once the tax credit is fully implemented, 10 percent of all taxpayers will use the scholarship tax credit and make a full $500 donation to a scholarship organization.[28] We also assume that 90 percent of the total money donated to scholarship organizations is distributed as scholarships and the remaining 10 percent used for administrative purposes. Furthermore, we assume that scholarship organizations pool scholarship donations so that the size of each student scholarship is $2,000. Since the average private school tuition is roughly $3,000 per year, the scholarship would probably not cover full tuition. To meet the balance, it is expected that parents will make contributions and that many schools will provide some tuition assistance.[29] Financial responsibility fosters a greater likelihood of parental involvement and subsequently greater school responsiveness to parents.[30] Under this scenario, 2.9 million scholarships in the amount of $2,000 apiece would be available for students.

To calculate the savings that the states would realize as a result of this credit, one must estimate the percentage of those scholarships that would go to students already attending private schools and the percentage that would be provided to students currently attending public schools.

If scholarship eligibility requirements were similar to those used by the nation's largest scholarship organization, the Children's Scholarship Fund, scholarships could be provided to children in families earning up to 270 percent of the poverty line.[31] Using that criterion, the Children's Scholarship Fund estimates that more than 20 million students would qualify for assistance.[32] Assuming those eligible students were enrolled in private schools at the national average rate, an estimated 2 million would be enrolled in private school.[33] Under that scenario, approximately 2 million scholarships would assist those students, and roughly 900,000 scholarships would remain for students who are currently in public schools. On the other hand, one could also target scholarships to America's lowest-income families. In 1997, roughly 5 percent of students enrolled in private school, or 250,000 students, were from low-income families making $12,800 or less.[34] Using this more restrictive criterion would greatly increase the number of scholarships that could go to new students from 900,000 to more than 2.6 million.

In the following calculation, using a less-generous criterion than the Children's Scholarship Fund and a more generous criterion than the bottom quintile, we use the moderate assumption that 1 million scholarships will assist students already in private school, leaving 1.9 million scholarships worth $2,000 each to assist new students entering private school. Evidence from existing programs suggests that there would be demand for all of those scholarships, even with the likely co-pay requirements. For instance, the Children's Scholarship Fund requires families to pay a portion of tuition and reports that the average family contributes $1,100 toward their children's education from an average household income of $20,663.[35] This suggests that the ability of parents to pay depends not only on income but also on attitude. Table 5 shows that under this scenario, as 1.9 million new students move to private schools from public schools, state savings would be $11.9 billion.

In the short term, a significant increase in demand for private schools would likely exceed available supply. An increase of 1.9 million students seeking instruction in private schools would be an increase of 37 percent for the private school market. Therefore, these savings would not occur in the first year of the program; they would only occur after supply had increased enough to meet the new demand.

Combined Impact of the Parental Choice and Scholarship Credits

Table 6 shows the total fiscal impact of the federal universal education credit. After the credit had been fully implemented, the parental choice and scholarship credits would likely help more than 2 million new students attend a school of their choice at a savings to states of $14 billion and a revenue loss to the federal government of $9.2 billion.

As noted earlier, however, it will take time for the savings to be realized. Initially, the universal education credit would likely be a net fiscal loss to the government. Families whose children were currently enrolled in private schools could use the credit immediately, which would represent an immediate fiscal loss to the federal government. Savings to the taxpayers would be realized only as new students transferred from public schools to

As 1.9 million new students move to private schools from public schools, state savings would be $11.9 billion.

Table 6
Combined Impact on State and Local Governments of the Parental Choice and Scholarship Credits

Factor	Impact
Current students enrolled in private school	5,076,118
New students assisted by parental choice credit	333,180
New students assisted by scholarship credit	1,925,000
Total number of students assisted	7,334,298
Revenue loss to federal government from parental choice credit	$2,704,684,910
Revenue loss to federal government from scholarship credit	$6,500,000,000
Total revenue loss to federal government	$9,204,684,910
State savings generated by parental choice credit	$2,082,509,949
State savings generated by scholarship credit	$11,913,825,000
Total state savings	$13,996,334,949
Net fiscal impact on state and federal governments (savings)	$4,791,650,039

The government's monopoly on K–12 schooling has restricted the supply of alternative schooling and put private school options out of the reach of many families. By funding scholarships for lower-income families and enabling parents to use their own tax dollars to pay for schooling, tax credits would begin to reverse that trend.

private schools, and it would likely take a few years for the private schools to expand to meet the influx of new students. As private schools expanded to meet the new demand, however, the states would begin realizing significant savings.

Our analysis may even underestimate long-run savings.[36] Experts on public school financing report that there are many more costs associated with running public schools than are represented in the per pupil spending figures.[37] If the costs of public schooling are greater than those suggested by the per pupil figures, it is likely that savings to taxpayers could be even greater than we estimate.

On the other hand, we may overstate long-run savings to taxpayers. For instance, it is conceivable that, as students transfer from public to private schools, the education establishment would lobby to keep the funds that were being spent on those students. If that occured, government spending on education would be constant, and per pupil spending would rise. However if "savings" means freeing tax dollars so they can be used for other purposes—for reinvesting in education, for instance, or cutting taxes—then savings would certainly be realized.

Discussion

Tax credits are a complicated way to bring about a freer market for K-12 education services. Why should money have to be taken from taxpayers and filtered through the federal government only to be returned through a complex tax procedure? We don't think it should. Ideally, state and federal taxes would be cut significantly so parents could more easily and directly assume financial responsibility for their children's education.[38] Barring that, however, there are few means available to empower parents with the ability to finance and direct their children's education. The government's monopoly on K-12 schooling has restricted the supply of alternative schooling and put private school options out of the reach of many families. By funding scholarships for lower-income families and enabling parents to use their own tax dollars to pay for schooling, tax credits would begin to reverse that trend.

It must also be noted that a $500 universal education credit against the federal income tax is not meant to revolutionize K-12 education—only state legislatures are in the position to do that. An estimated 95 percent of the money spent on education comes from state or local funds. The federal credit is designed to spur and supplement reform at the state level. Ultimately, the federal government should have no role in education, for practical as well as constitutional reasons.[39] We believe that a tax credit, by increasing parents' ability to direct their children's educations, would help neutralize the federal role in education rather than expand it.

Conclusion

The projected impact of the universal education tax credit on federal and state budgets will hinge on several factors, including the rate at which taxpayers use the credit, the attendant increase in demand for private schooling, and the subsequent increase in the supply of private schools.

In this analysis, we assumed that every dollar spent on the tax credit resulted in a direct revenue loss to the federal government, for a total cost of $9.2 billion. At the state level, however, use of the tax credit results in revenue savings. By reducing the cost of private schooling, the education tax credit encourages some parents to transfer their children from public to private schools. As students transfer to private schools, the government has fewer pupils to educate and can reduce education expenditures accordingly.

Using conservative estimates, this fiscal analysis shows that the parental choice component of the credit could help more than 330,000 new students attend schools of their parents' choice, in addition to making private schooling more affordable for the families of the more than 5 million students cur-

rently enrolled in private school. Estimated savings to taxpayers at the state level would be $2 billion, with significant variation from state to state. Savings would be greatest in states with large urban areas, where demand for private schooling tends to be greater than the national average, and in states where the government's per pupil expenditures are greater than the national average. Savings to taxpayers in states such as California would be an estimated $250 million; savings to taxpayers in states such as New Mexico would be an estimated $8 million. We also find that the credit's scholarship component could raise enough money to give nearly 3 million students scholarships worth $2,000 apiece. If 1 million of those scholarships went to low-income children who are currently enrolled in private schools, there would still be enough revenue to give nearly 2 million additional children scholarships in the amount of $2,000 to attend better schools. Under this scenario, as an estimated 2 million new students move to private schools from public school, taxpayers at the state level would reap approximately $12 billion in savings.

Taken all together, the parental choice and scholarship credits should enable roughly 2.3 million new students to attend schools of their parents' choice at a savings to the states of $14 billion.

Notes

1. The Education Trust, "Achievement in America 2000," <http://www.edtrust.org/main/data.asp>. For international math and science scores, see *Third International Mathematics and Science Study*, <http://nces.ed.gov/TIMSS>.

2. For a thorough discussion of the historical and present state of student achievement, see Andrew J. Coulson, *Market Education: The Unknown History* (New Brunswick, N.J.: Transaction Books, 1999), pp. 177-218.

3. The public's level of confidence in public elementary and secondary education declined during the 1990s. National Center for Education Statistics, *Digest of Education Statistics 2000* (Washington: Government Printing Office, January 2001), NCES-2001-034, Table 29. Cited hereinafter as NCES 2000. Most Americans also think private schools offer a better education than do public schools and that public schools "need major change." "On Thin Ice: How Advocates and Opponents Could Misread the Public's Views on Vouchers and Charter Schools," (New York: Public Agenda, 1999, pp. 29-30.

4. Keating Holland, "Poll: Americans Generally Favor School Vouchers, But Unsure of Bush Plan," January 10, 2001, <http://www.cnn.com/2001/ALLPOLITICS/stories/01/10/cnn.poll/index.html>.

5. For a review of the literature, see Jay P. Greene, "A Survey of Results from Voucher Experiments: Where We Are and What We Know," Manhattan Institute Civic Report no. 11, July 2000; and Philip Vassallo, "More Than Grades: How Choice Boosts Parental Involvement and Benefits Children," Cato Institute Policy Analysis no. 383, October 26, 2000.

6. Holland. This finding is consistent with that of Public Agenda, p. 13.

7. The benefits of universal education tax credits include giving parents more control over their children's education by empowering the parents to select and pay for their children's schools, reducing the financial penalty borne by parents seeking independent schools for their children, generating competition among schools, spurring improvements in both independent and government schools, and raising scholarship funds for students in need. Darcy Ann Olsen and Matthew J. Brouillette, "Reclaiming Our Schools: Increasing Parental Control of Education through the Universal Education Credit," Cato Institute Policy Analysis no. 388, December 6, 2000; and Andrew J. Coulson, "Toward Market Education: Are Tax Credits or Vouchers the Better Path?" Cato Institute Policy Analysis no. 392, February 22, 2001.

8. Arizona, Iowa, Minnesota, and Illinois have education tax credits. For more information, see Olsen and Brouillette, pp. 5-7. Lawmakers in Colorado, Florida, New York, New Jersey, Pennsylvania, Utah, and Virginia will have considered education tax credits this year. For more information, contact the Education Commission of the States, Denver, Colorado, or visit <http://www.ecs.org/clearinghouse/13/75/1375.htm>.

9. The federal government views the credit as a revenue loss, or cost. From the perspective of taxpayers, however, that cost may be viewed as "taxpayer savings" because the credit essentially returns tax dollars to taxpayers.

10. Savings occur at both the state and local level, but the amount of savings at each level varies significantly by state as different states finance education with varying levels of state and local expen-

We believe that a tax credit, by increasing parents' ability to direct their children's educations, would help neutralize the federal role in education rather than expand it.

ditures. For the purpose of simplification, throughout this study we discuss "savings to the states," using the term "states" to include local savings. Some analysts have attempted to differentiate between savings that would accrue at the state level and savings that would accrue at the local level. See, for instance, Jerry Ellig, "Fiscal Analysis of the Virginia Children's Educational Opportunity Act of 1999 (preliminary findings)," Unpublished paper, jellig@gmu.edu.

11. There are an estimated 5,076,119 students in private school. NCES 2000, Table 64.

12. Some proposals for universal education credits also let businesses take a credit against their federal corporate income tax or similar state-level taxes. See, for instance, Olsen and Brouillette; and Coulson, "Toward Market Education: Are Tax Credits or Vouchers the Better Path?"

13. The scholarship organizations could be modeled after those in Arizona. In that case, the scholarship organizations would be nonprofit, under sec. 501(c)3 of the Internal Revenue Code, and would be required to distribute a minimum of 90 percent of their revenue as scholarships. The remaining 10 percent of funds could be used for administrative costs. Alternatively, scholarship organizations could be required to distribute 100 percent of revenues as scholarships, and administrative funds could be raised in the private sector.

14. In 1999 more than 30,000 people used Arizona's $500 scholarship credit, raising almost $14 million for scholarships. Arizona Department of Revenue, Office of Economic Research and Analysis, "Arizona's Individual Income Tax Credits for Schools," *Final Report of 1998 Credits*, October 2000.

15. We assume that only 90 percent of funds raised become available for scholarships.

16. It is important that families be eligible for both. Scholarships are not expected to cover full tuition, so parents will likely be paying some tuition costs out of pocket. Having access to the parental choice credit will make that more feasible.

17. Carrie Lips, interview with Eileen Klein, president and CEO, Arizona School Choice Trust, March 19, 2001, and Darcy Ann Olsen, correspondence with Klein, March 19 and 20, 2001.

18. There is good reason to believe per pupil expenditure is a conservative starting point for estimating cost savings. First, the per pupil expenditures we use (fall enrollment) do not include such costs as debt repayment or construction. Second, per pupil base funding is at the heart of charter school funding systems. See U.S. Department of Education, Office of Educational Research and Improvement, "Venturesome Capital: State Charter School Finance Systems," December 2000. Though funding formulas and amounts vary by state, on average charter schools receive about four-fifths of the dollars per pupil that conventional public schools receive. See Chester Finn, Bruno Manno, and Gregg Vanourek, *Charter Schools in Action* (Princeton, N.J.: Princeton University Press, 2000), p. 152. Furthermore, there is strong evidence that the savings to taxpayers could be even greater than per pupil figures suggest, given the "hidden costs" of education. For example, Myron Lieberman lists at least eight possible costs of public education at the state level that are sometimes omitted in per pupil spending figures, including pensions, textbooks, and administrative costs. Myron Lieberman, *Public Education: An Autopsy* (Cambridge, Mass.: Harvard University Press, 1993), pp. 118–19.

19. Barry R. Chiswick and Stella Koutroumanes, "An Econometric Analysis of the Demand for Private Schooling," *Research in Labor Economics* 15 (1996): pp. 209–37. Chiswick and Koutroumanes used data from the 1980 Census of Population of school-age children to determine the effects of various factors on a parent's decision to send a child to a private school. They concluded that the price elasticity for private school was -.48, with the 95 percent confidence interval between -.59 and -.38. Other economists have estimated that the demand for private schools is far more responsive to changes in price. See, for instance, Patrick Anderson et al., "The Universal Tuition Tax Credit: A proposal to Advance Parental Choice in Education," Mackinac Center for Public Policy, November 1997; and Carlisle Moody and Jerry Ellig, "The Universal Tuition Tax Credit: Achieving Excellence in Education without a Tax Increase," Virginia Institute for Public Policy Report no. 4, September 1999. In order to estimate the change in demand conservatively, however, we use Chiswick and Koutroumanes's more moderate price elasticity assumption of -.48. We also note that Chiswick and Koutroumanes rely on cross-sectional data, which looks at natural variations in private school attendance and tuition costs. Ideally, estimates would be based on cross-sectional time-series data, which would show how changes in price affect enrollment. However, those data were not available. Chiswick and Koutroumanes explain that the 1980 Census, unlike the 1990 Census, is nonetheless useful for analyzing school choice, because in addition to "the wide range of socioeconomic and demographic variables, the large sample size and national coverage permit more confidence to be placed in the results of the estimation. Moreover . . . the 1980 Census . . . distinguishes among the three different types of schools," p. 218.

20. NCES 2000, Tables 62 and 169. For more discussion on private and public school costs, see

Coulson, Market Education, pp. 277–78.

21. The supply curve for private schooling is assumed to be perfectly elastic in the long run. See Chiswick and Koutroumanes.

22. This is a conservative estimate because there are families with children enrolled in private schools that may not have an income-tax liability and therefore could not use the credit. For instance, in 1997, roughly 5 percent of students (approximately 250,000) enrolled in private school were from low-income families making $12,800 or less. Such families are unlikely to have an income-tax liability that would enable them to use the credit directly. National Center for Education Statistics, *The Condition of Education Statistics 1999*, NCES 1999-022, pp. 58–64.

23. NCES 2000, Table 170.

24. The amount of charitable giving to education organizations has held fairly steady since 1989, when it was 19.1 percent. National Center for Education Statistics, *Digest of Education Statistics 2000*, Table 30.

25. The National Center for Education Statistics estimates that 20.3 percent of households made contributions to charities related to education in 1995, and the Bureau of the Census estimates that there were 99,800,000 households in 1995. Households may contain more than one taxpayer. According to the Tax Foundation, there were 117 million tax returns filed in 1995. To make a conservative estimate, we assume that none of the additional 17 million taxpayers will participate in the program. Therefore, if the same percentage of taxpayers donates to charities related to education in 2001 as contributed in 1995, roughly 22 million, or 17 percent of all taxpayers, will participate. NCES 2000, Table 30; Bureau of the Census, *Statistical Abstract of the United States: 1997* (Washington: Government Printing Office, 1997), Table 66; and The Tax Foundation, "Summary of Federal Income Tax Data, 1998 & 1999," Tax Bites, <http://www.taxfoundation.org/prtopincometable.html>.

26. Fifty percent provides an outer limit, but it seems improbable that such a high number of taxpayers would make donations and exercise the credit, even once awareness of the credit has peaked.

27. The low participation rate could be related to the legal challenge against the credit, which kept the program tied up in the courts for most of that year. In September of 1999, the Arizona Supreme Court upheld the constitutionality of the program in *Kotterman v. Killian*, No. CV-97-0412-SA, <http://www.supreme.state.az.us/opin/pdf99/cv970412.pdf>.

28. To limit costs of forgone revenue, policymakers would have the option of capping the amount of revenue. Similarly, if generating more revenue and scholarships was desired, policymakers could expand the credit or make it available to businesses.

29. The nation's largest scholarship fund, Children's Scholarship Fund, requires parents to help with tuition. The program pays from 25 to 75 percent of tuition. The average family contributes $1,100 toward their children's education, from an average household income of $20,663. This suggests that the ability of parents to pay depends not only on income but also on attitude. For more information, see <http://www.scholarshipfund.org/index.asp>. In addition, schools could use tuition fees from other students to subsidize a certain number of needy children. Such aid is not uncommon: about 80 percent of Catholic elementary schools and 97 percent of Catholic secondary schools provide some form of tuition assistance to students. Dale McDonald, *United States Catholic Elementary and Secondary School Statistics 1999–2000: Synopsis of the Annual Statistical Report on Schools, Enrollment and Staffing* (Washington: National Catholic Educational Association, 2000), p. 6.

30. Education historian Andrew Coulson argues that direct parental financial responsibility is the key to ensuring parental control over education services. He writes, "Historically, schools funded by third parties have seldom taken the needs and preferences of family as their guiding principle." Coulson, "Toward Market Education: Are Tax Credits or Vouchers the Better Path?" p. 6.

31. See <http://www.scholarshipfund.org/index.asp>.

32. Dan Lips, correspondence with Rick Hough, National Program Director for the Children's Scholarship Fund, March 9, 2001. The Children's Scholarship Fund's scholarships average $1,049 per child. Karl Eschbach, a demographer in the Department of Sociology at the University of Houston, derived that estimate for the Children's Scholarship Fund.

33. The actual figure, as calculated by the authors, is 1,980,000.

34. NCES 1999, pp. 58–64.

35. The Children Scholarship Fund received more than 1.25 million applications in 1998 for scholarships that require a copayment and are roughly half the size of those proposed here. CSF estimates that 33 percent of eligible parents applied in Washington, D.C., 26 percent in Atlanta, 20 per-

cent in Los Angeles, 44 percent in Baltimore, and 29 percent in New York City. Therefore, it seems reasonable to assume that a program with significantly more publicity and funding would attract enough low-income applicants to use any available scholarship money. See Joseph A. Califano Jr., "A Gauge of Distress with Public Schools," *San Francisco Chronicle*, May 6, 1999; and Richard A. Melcher and Aaron Bernstein, "Itching to Get Out of Public Schools," *Business Week*, May 10, 1999.

36. For instance, demographic projections in many states predict an increase in K–12 school enrollment over the next 10 years. As the school-age population increases, school construction costs are expected to increase. If education tax credits reduce the demand for public schooling, they may also have the ancillary benefit of lowering future school construction costs. Our analysis does not account for this possibility. See, for instance, John Balz, "California and the West: 'Baby-Boom Echo' is Putting a Strain on Schools, Study Finds," *Los Angeles Times*, August 20, 1999; and Debra E. Gerald and William J. Hussar, Projections of Education Statistics to 2010, (National Center for Education Statistics, August 21, 2000), Table 5, <http://www.nces.ed.gov/pubs2000/projections/Table05.html>.

37. See Lieberman, pp. 118–19.

38. Under this scenario, as greater numbers of parents began paying directly for schooling and the role of the state in financing and operating schools was reduced, schooling would become more affordable, putting it within reach of even the lowest income families. Scholarships could provide for children whose parents were unable to provide for them.

39. For more on this perspective, see Douglas D. Dewey, "Department of Education," in *Cato Handbook for Congress: 107th Congress* (Washington: Cato Institute, 2001), pp. 133–40; and David Boaz, "Department of Education," in *Cato Handbook for Congress: 106th Congress* (Washington: Cato Institute, 1999), pp. 123–31.

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